OPERATING INSTRUCTIONS
FOR
CONSEW
MODELS
224 & 224R-1
225 & 226R-1

CAUTION
KEEP HANDS OFF MOVING PARTS.
SHUT OFF POWER
BEFORE MAKING ANY ADJUSTMENTS

CONSOLIDATED SEWING MACHINE CORP.
SETTING UP THE MACHINE

Carefully unpack machine from packing case and make sure that all small parts and accessories are removed from packing material.

Wipe machine clean of protective grease and lubricate all oil holes with a good grade of sewing machine oil. (see Below)

The bed of the machine is made to standard dimensions and requires a normal “long arm” table.

CAPACITY AND SPEED

The alternating presser feet of CONSEW Model 225 and 226R-1 have a maximum lift of 1/2”. The amount of lift is instantly adjustable.

Maximum possible stitch length is 3-1/2-4 stitches per inch in Model 225 and 5 stitches per inch in 226R-1.

Maximum operating speed after a break-in period is 3500 stitches per minute depending, of course, on the type of material being sewn, its thickness and that of the seams being crossed.

To assure durability and trouble-free operation it is imperative that for the first several weeks of operation the maximum speed is held to nor more than 2900 RPM in order to allow the parts to become properly broken in.

DIRECTION OF ROTATION

In operation the handwheel of the machine always turns toward the operator. To avoid tangled threads and jamming of the sewing hook, do not turn handwheel otherwise.

OILING

Do not operate the machine, even if only for testing, unless it has been properly oiled at every spot requiring lubrication. The arrows on the following illustration indicate these spots. (Fig. 1, Fig. 2-A, 2-B, 2-C, 2-D).

Oiling must be done at least twice daily when the machine is in continuous operation to assure free running and durability of the operating parts.

NOTE—During the breaking-in period a new machine should be oiled more frequently.

The hook mechanism, Figure 3, should receive careful attention when lubricating the machine.

The oil well W surrounding the hook should be filled with oil and the felt pad P alongside the bobbin case should be soaked with oil. In the case of a new machine, oil pad P every time a new bobbin is inserted.
NEEDLE AND THREAD SELECTION

CONSEW Model 225 and 226R-1 machine are set up to use standard style 135×17 needles in sizes ranging from 12 to 24. The thickness of the sewing thread, which must pass freely through the eye of the needle, determines the size of the needle.

Remember—uneven, knotted or rough thread impairs the satisfactory sewing performance of your machine.

Only left twist thread is to be used for the needle. To test for twist hold a length of thread between thumbs and index fingers of your hands. Turn thread counterclockwise. If it will twist tighter, it has a left twist. If it unravels, it has a right twist.

The bobbin can be wound with either left or right twist thread.

NEEDLE AND THREAD CHART

<table>
<thead>
<tr>
<th>Needle Size</th>
<th>Thread Size</th>
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<tbody>
<tr>
<td>16</td>
<td>40</td>
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<td>19</td>
<td>30—20</td>
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<td>21</td>
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<td>8</td>
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<td>23</td>
<td>5</td>
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THREADING THE NEEDLE

From the thread stand lead the thread from back to front through the lower guide hole in pin “P” on top of the machine arm, then again from right to left through the upper guide hole in this pin. Pass thread in weaving fashion through the three holes in guide “B”, and from right to left over and between the tension disc “C”. Now pull thread downward and from right to left beneath and around thread controller “D”; continue to pull thread upward against the pressure of the wire spring into the fork “E” in the thread controller. Guide upward through thread guide “F” and from right to left through the eye in take-up lever “G”, down through thread guide “F” again and then through “H”, “I” and “J” from left to right through the eye of the needle. (See Fig. 1)

INSERTING & REMOVING THE BOBBIN

— Threading the Bobbin Case —

Push open the right-hand cover plate in the bed of the machine. Pull up latch “L” and lift the bobbin from the bobbin case.
To insert a full bobbin hold it on one of its sides between thumb and
index finger of your right hand. Be sure that the thread draws out from the
bobbin from left to right. Place bobbin on center post “M” of bobbin case
and push down latch “L”. Pull thread into slot “N” inside of bobbin case
and to the left under tab “O”. Draw out about 2-3 inches of thread. Close
cover plate, but leave sufficient space for passage of thread. (See Fig. 3)

INSERTING A NEW NEEDLE

Turn handwheel toward you until needle has reached the highest point
of its travel. Loosen the needle set screw about one turn, pull out the old
needle and insert a new one. Push the needle up into the needle bar as far
as it will go, setting its long groove toward the left with eye of the needle
going from left to right. Tighten needle set screw securely.

WINDING BOBBINS

The bobbin winder is mounted on the table top with its pully in front of
the driving belt so that the pulley will separate from the belt after the bobbin
has been wound with sufficient thread.

Push the bobbin on bobbin winder spindle as far as it will go. Pass
thread from thread stand downward through eye in tension bracket; then be-
 tween and around the back of the tension discs bring thread forward toward
bobbin and wind from below in clockwise direction several times around bobbin.
Push bobbin winder lever downward until wheel contacts the drive belt and
start machine. After bobbin is filled with thread, release will cause wheel to
disengage from belt and winding will stop. Cut thread and remove bobbin
from winder spindle.

Adjustment screw can be turned in or out to increase or decrease the
amount of thread wound on the bobbin.

When fine thread is wound on bobbins, use light tension. It is regulated
by turning the knurled nut on the tension bracket at the rear of the bobbin
winder. Bobbin can be wound while the machine is sewing.

ADJUSTING THE STITCH LENGTH

The stitch length is changed by pressing down the button (Q, Fig. 4) in
the bed plate of the machine and by simultaneously turning the handwheel
slowly toward you.

In due course, the plunger will enter into a notch in the feeding mecha-
nism. Hold the plunger down and continue to turn the handwheel, either
forward or rearward, until the marking (X) with the desired number of stitches
on the handwheel coincides with the reference mark (R) on the arm.

Then release the plunger.
REVERSE STITCH (MODEL 226R-1)

To do tacking for the purpose of locking the ends of seams, rapidly depress and release the lever (W, Fig. 5).

When reversing feed of the machine, keep the lever (W) depressed as long as required. For all other forward stitching, the lever remains in up position.

BELT GUARD

Belt guard (Y, Fig. 5) can be supplied on order.
SEWING PROCEDURE

Turn the balance wheel toward you with the right hand until the needle moves down and up again to its highest point, thus catching the lower (bobbin) thread. Now pull the end of the upper thread you are holding and the bobbin thread will be brought up with it through the needle hole in the feed dog. Place both ends of thread back under the presser foot. Place the fabric to be sewn beneath the presser foot, lower the foot upon it and then start the machine.

TO REMOVE THE WORK

Raise the needle bar to its highest point; lift the presser foot and draw the fabric back and to the left. Cut the ends of the threads a few inches long from the needle.

REGULATING THE THREAD TENSIONS

For ordinary stitching, the tension on the upper and lower thread should be equal so as to lock both threads in the center of the fabric. If the tension on either thread is stronger than on the other, imperfect stitching will be the result. If the tension on the upper thread is greater than that on the lower thread, it will lie straight along the upper surface of the fabric. If the tension on the lower thread is greater than that on the upper thread, the lower thread will lie straight along the underside of the fabric.

A. Tension of the Upper (Needle) thread:
   Before adjusting the tension of the upper (needle) thread, be certain that
   the presser foot is let down and not in lifted position. Turn serrated nut “S” on tension device (Fig. 4) to the right to increase tension and to the left if you desire to decrease it.

B. Tension of the Lower (Bobbin) thread:
   The lower (bobbin) thread tension is controlled by the screw near the
   center of the spring at the outside of the bobbin case. Turning this screw clockwise will increase the thread tension, while turning it to the left or
counterclockwise will decrease it.

HOW TO RE-SET THE SAFETY CLUTCH MECHANISM

The sewing hook and its mechanism are protected by a safety clutch. If it should become necessary to re-engage the safety clutch, depress button “T” in the bed plate of the machine (Fig. 4) nearest to the arm. At the same time turn handwheel away from you until the locking mechanism re-engages the drive shaft beneath the bed of the machine. Open bed slide plate above hook and rock handwheel back and forth to remove any foreign matter which may have lodged itself in the hook. Do not use any sharp-edged tools, etc., lest the hook be damaged.
ADJUSTING THE HEIGHT OF THE PRESSER FEET

1. Adjustment By The Presser Bar Lifter

Loosen the screw (①, Fig. 1) sufficiently, raise the presser bar lifter and loosen the set screw (②, Fig. 6).

Move the lifting presser foot up or down as may be required so as to get the correct height and tighten the screw.

2. Adjusting The Lift Of Alternating Presser Feet

On the model 225 and 226R-1, if the height of the lifting presser foot changes, the momentums of the lifting and vibrating presser foot vary, thus the height of the vibrating presser foot must be adjusted.

A. Lower the presser bar lifter, holding the vibrating presser foot loosen the hexagon screw (③, Fig. 6) and move the presser foot up or down as may be required.

B. After setting the position, tighten the screw.

Normally, the momentums of the alternating presser feet are adjusted to equal, but for piping work, it is effective to adjust less momentum of the vibrating presser foot than that of the lifting presser foot.

TIMING OF THE VIBRATING PRESSER FOOT

This is the normal timing when, turn the balance wheel toward you, after lowering the presser bar lifter, the vibrating presser foot should reach the feeder earlier than the needle eye comes to, and when the needle raises, the vibrating presser foot should leave the feeder after the needle eye has left the feeder.

This is due to the reason that the vibrating presser foot must tightly hold the goods while the needle is passing the goods for avoiding irregular stitches. To adjust this, set the lift of the alternating presser feet to equal, loosen the two screws (U, Fig. 6) and adjust the rotating position of the cam (V, Fig. 6) faster or slower as may be desired, and tighten the screw.
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